ELECTRONIC DRAWING GAME

Field of the Invention

The present invention relates to electronic games played against contestants located at the same location or played over the Internet with players located at remote locations.

BACKGROUND OF THE INVENTION

The development of electronics and microprocessor controlled computers has resulted in the evolution of various products as well as the enhancement of older products to make our lives more enjoyable as well as ease the burden in performing various tasks. Many consumer products, which in years past operated without the necessity of electronic or microprocessor control, now utilize this technology in the operation of these products. For example, consumer products such as refrigerators, dish washers and ovens now operate through the use of microprocessors. These microprocessors with the help of various sensors would monitor various operating conditions, allowing each of these appliances to function more efficiently.

The use of electronics and microprocessors have also extended to amusement games and devices. Initially, amusement games employing electronics and microprocessors were very rudimentary, such as the games Pong and Battleship. Recently, these amusement games have become quite sophisticated and therefore have enhanced the enjoyment to the players of these games. Along with the pure enjoyment factor of these games, it is important to develop games and activities which can be used to teach children as well as adults various academic or artistic skills. These skills would include recognizing a particular scene based upon a partial rendition of such a scene. These type of games are described in patent application publication 2002/0016196 to Orak as well as patent application publication 2003/0003979 to Seelig et al.

The patent application publication to Seelig describes a gaming device consisting of a display 50 having three display sections 52. Each of the display sections 52 would display a

portion of a complete screen. During the play of the gaming device, a player would pull a lever 14 allowing each of the display sections to rotate to randomly display an image. If the image in the three display sections result in a complete image, the participant of the gaming device would be awarded a payout.

The patent application publication to Orak describes an Internet game show in which a single scene is progressively and incrementally exposed to a plurality of game players provided on a display screen. Once one of the game players recognizes the scene that is being exposed, that player would respond with sending to a game host the name of the scene.

While the published patent application to Orak describes a game in which participants endeavor to recognize a scene, object or the like, based upon progressively exposing a series of visual clues, it does not teach a skill such as assisting an individual with completing a scene containing an incomplete set of visual clues by allowing that individual to complete the scene by drawing the portion of that scene not depicted on the display screen. Additionally, the published patent application to Orak does not describe a system in which certain challenges are given to the participants for the purpose of making it more difficult to complete the scene.

BRIEF DESCRIPTION OF THE PRESENT INVENTION

The present invention overcomes the deficiencies of the prior art by providing a game in which various participants are asked to complete a picture or scene depicted upon a computer screen or similar display device. Visual clues including one or more fragments of a complete picture or scene would by displayed on the display device. The participants would then be asked to complete the picture or scene using various types of drawing tools. Some of these tools would make the task of completing the scene more challenging. After an initial screen fragment or number of fragments would be shown on the display device, all of the participants would be given a certain period of time to complete the picture or scene by drawing on their display device, the remaining portion of the picture or scene, not currently displayed. If the participants are given a separate piece of paper, they would be required to draw both the displayed portion of the scene as well as the undisplayed portion of the scene. After this period of time has expired and no participant has correctly completed the picture or scene, an additional fragment or fragments would be displayed upon the display device and all of the participants would be given another opportunity to complete the picture or scene. In one embodiment, a host would be chosen to determine whether one or more of the participants has correctly completed the picture or scene. If the host determines that the picture or scene is accurate, a round of the game would be completed and the participant who initially correctly completed the picture or scene would be awarded a certain number of points. The game would continue for a number of rounds until a particular goal has been reached by one of the participants. This goal would generally be, but is not limited to a certain number of points.

Other embodiments of the game would include a system in which a determination of the correctness of each of the participants response would be made electronically utilizing a central processor unit located at the site of the game.

Alternatively, this game could be played over the Internet allowing participants to play the game at various locations. Furthermore, along with the correct completion of the picture, each participant may also respond by correctly naming the type of picture or scene depicted upon the display device, as well as responding to other questions about the picture or scene. The play of this game could also be enhanced by providing the participants with a sound associated with the displayed picture or scene.

Yet a further embodiment of the present invention would display the picture or scene for only a short period of time. Each of the participants would then be asked to name the picture or scene shown on the display using various state of the art input devices. Yet another embodiment would allow only a single participant to play the game.

These and various advantages, objects and features of the present invention will become apparent from the following description, when considered in conjunction with the appended drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is substantially a front view of two computer game modules connected to a hard drive;

Figure 2 is a block diagram showing the main control of the present invention;

Figure 3 is a block diagram showing the use of this game over the Internet;

Figure 4 shows a first display screen and console at an early stage of the game showing an incomplete scene;

Figure 5 shows a second display screen and console at an early stage of the game showing an incomplete scene;

Figure 6 shows a display screen showing a completed scene; and

Figure 7 shows a participant attempts to complete a scene using a challenging implement.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Figure 1 illustrates several components of the present invention **10**. The present invention would include one or more game units **12**, **14**, each of the game units utilized by a single participant. Although Figure 1 shows use of two game units, it can be appreciated that the number of game units are not important. Additionally, as will be subsequently explained, only a single participant could take advantage of the present invention as well as an unlimited number of participants, each participant utilizing his or her own game unit.

As shown in Figure 1, game unit **12** is provided with a display screen **18** depicting a complete particular scene **22**. Although the exact scene or picture is not important, for purposes of discussion of the present invention, scene **22** is is a basketball game. Game unit **12** is also provided with a keyboard **30**, a mouse **32** as well as a drawing device **38**, such as a pointer, all connected to a computer unit **16** provided with input devices **42**, **44** for the insertion of hard drives as well as an on/off switch **46**. Similarly, game unit **14** is provided with a display **28** on which the basketball game **26** is displayed similar to the display shown on the game unit **12**. Display screen **18** would include a cursor **20** and a display screen **28** would include a cursor **24**. Similar to the game unit **12**, the game unit **14** would be provided with input devices such as a keyboard **36**, a mouse **34**, and a drawing device **40**, such as a pointer, all connected to the computer unit **16**. Although Figure 1 indicates that all of the input devices are hard wired to the computer **16**, the type of communication between the input devices, the displays and the computer are not important. For example, radio waves as well as infrared type connections could also be utilized between the input devices, the displays and the computer. Additionally, each of the game units could have its own computer. Furthermore, as will be subsequently explained, the pointer could be a vibrating

pen acting as one of the challenging tools to inhibit the completion of the drawing.

Game unit **12** is also provided with two dials **31, 33** which can be used instead of the drawing device **38** to complete the drawing shown on the display **18**. The dials **31, 33** would act in a manner similar to the dials used in an Etch-A-Sketch type game to provide horizontal and vertical movement of the cursor **20** to complete the drawing. It is envisioned that the drawing device **38** would be used to complete the drawing by physically touching portions of the display screen **18**. Similarly, the game unit **14** would be provided with dials **39, 41** to also complete the drawing on the display **28**. Each of the keyboards **30, 36** would include a microphone **37, 45**, respectively to allow a verbal response to be processed by the computer **16**. Each of the keyboards **30, 36** would also be provided with a loudspeaker **35, 43**, the function of which will be explained hereinbelow. As can be appreciated, each of the keyboards **30, 36** would be provided with a standard keyboard arrangement on one portion of the keyboard as well as function keys on the second portion of the keyboard. Furthermore, although the keyboards are shown to include drawing devices **31, 33, 39** and **40** as well as loudspeakers and microphones **35, 37, 43** and **45**, these devices could be divorced from the keyboard and provided on a separate console.

Figure 2 illustrates a controller, controlling various aspects of the present invention as provided within the computer **16**. Although a separate computer **16** is shown in Figure 1, it is noted that one of the game units **12, 14** can incorporate this controller therein, thereby eliminating the need of a separate computer **16**. If this is the case, of course, all of the game units must be connected to the game unit/controller. The game unit/controller would be used if the game is to be played by one participant. Additionally, each of the game units could be provided with its own computer.

The controller **48** would include a CPU **50** connected to a memory **52**. This memory could take many forms such as a random access memory (RAM), a read only memory (ROM) as well as an EEPROM or the like. The material in the memory could be changed by the insertion of various disks into one of the drives **42, 44**, or by connection to an external source. This connection could be hard-wired, accomplished by radio waves, infrared rays, or the like. Alternatively, the drives **42, 44** could be associated with the self-contained game unit/controller or a computer connected to each game unit, as previously described. The controller **48** contains input/output ports **54** in communication with a drawing device such as a pointer **58** (or dials **31, 33, 39** and **40**), a mouse **60**, a keyboard **62** and an audio input device **64**. Based upon the type of input information received by the input/output ports **54**, this information would be directly transmitted to the CPU **50** or a voice recognition device **56**. It is noted that the pointer **58**, the mouse **60**, the keyboard **62** as well as the audio input **64** are meant to illustrate various types of input from all of the game units. It is contemplated that other types of input devices would also be employed.

The controller **48** is provided with various manners of communicating with each of the game controllers or players. The controller **48** as shown in Figure 2 illustrates communication devices **66, 68, 70** and **72** for player I, player II, player III and player IV, respectively. However, it can be appreciated that the number of controllers is limitless, particularly when the game is to be played over the Internet. It can also be appreciated that the type of communications between the controller **48** and each of the players is not crucial. For example, the communication between the controller **48** and the game units **12, 14** shown in Figure 1 could be wired as shown by the communication between the keyboards **30, 36** and the computer **16**. Alternatively, radio wave or infrared wave communication could also be utilized. Additionally, if the game is played over the Internet, the

controller **48** would be provided at a central server location and would communicate with each of the game units using any prior art communication facility.

The controller **48** would be provided with a voice recognition device **56** connected to the CPU **50** as well as the input/output ports **54**. The purpose of this voice recognition device would be to recognize a verbal response from the player regarding the type of picture or scene shown on their own display, or other responses produced by the player.

As previously described, each of the game units could include loud speakers **35, 43**. The purpose of these loud speakers would be to enhance the play of the game as well as to provide clues as to the picture or scene illustrated on the video displays. For example, since the scene depicted in displays **18** and **28** is a basketball game, crowd noise or music associated with the sport of basketball would be played during a portion of the time in which the scene is progressively displayed upon displays **18, 28** or during the entire time the scene or a portion thereof are shown on the display.

Referring to Figure 3, the game of the present invention could be played over the internet. In this situation, all of the players **74, 76, 78** and **80** would be connected to the Internet **82** which in turn is connected to a game controller **84**. The game would be played in this same manner as if all of the participants were in the same location.

Figures 4, 5 and 6 show various display screens as well as display devices used during the course of the game. Each of these display devices may contain its own microprocessor or may be connected to a central microprocessor provided at the same location as the display units or at a remote location from the display units. The display unit illustrated in Figure 4 contains a screen **86** on to which a single contiguous portion of a drawing or scene **88** is projected. As shown therein, this drawing or scene **88** takes up approximately one-third of the screen surface.

Although the display unit shown in Figures 4, 5 and 6 can be connected to a keyboard as illustrated in Figure 1, Figure 4 illustrates the use of a plurality of switches or buttons provided to control the play of the game. These switches or buttons are provided in a console **90** and would include various categories such as history **92**, sports **94**, animals **96**, famous people **98** and science **100**. During the play of the game, the player can control the types of drawings or scenes depicted on the screen **86** by depressing one of these buttons. The console is also provided with a pause button **102**, an ON switch **106**, an OFF switch **104**, as well as a signal switch 108 used to indicate that the participant has completed the drawing partially depicted on screen **86**. Although screen **86** shows the use of approximately one third of the screen surface to initially illuminate a particular drawing or scene, it is obvious that the area on the screen in which a drawing is either initially or subsequently depicted can be changed.

Figure 5 depicts a display device including a screen **110** onto which various noncontiguous areas of the screen are depicted. These areas include portions **112**, **114**, **116** and **118**. In this embodiment, a noncontiguous scene is depicted and the player or players, similar to the play of the game with respect to the scenes shown in Figure 4, would be asked to complete the drawing as is shown in its completed form **120** on screen **124** of Figure 6. It is noted that in addition to successfully completing the drawing or scene, each of the participants may answer various questions utilizing, for instance, the keyboard and microphone shown in the display units illustrated in Figure 1. Figure 6 indicates that the participant has stated that the scene is a basketball game **122**.

As previously mentioned, the difficulty and skill level of the game can be increased by forcing the participants to utilize various implements in completing the picture, the implements making it more difficult to correctly complete the

picture or scene. For example, as shown in Figure 7, after a portion of a picture or scene is illustrated on a display screen such as an LCD screen or light board, each participant would be asked to complete the scene on a piece of paper **134** utilizing 3-D or distorted glasses **130** or a vibrating pen **132**. It is noted that when a participant is asked to complete the picture or drawing on the screen shown in Figure 1, pointers **38** and **40** could also be vibrating. These challenges given to the participants would also include but not be limited to providing the participants with finger paint to be applied to the paper **134** or using stamps with an ink pad. These stamps would be of different shapes which, if properly utilized, would be capable of completing the scene. Additionally, the participants could also be asked to complete the scene by being provided with a glove or mitten with a pencil attached to the back of the participant's hand. Other challenges could include making each of the participants dizzy by spinning them, requiring each of the participants to draw with their opposite hand, or requiring the use of water paints.

The play of this game could take several forms. In a preferred embodiment of the game, a game master will be appointed to control the game. Two or more players would be provided with the types of display devices shown in Figures 1, 4 or 5. The game master would chose a category from the typical categories shown on the console **90** of Figure 4. At this point, all of the participant's screens would be illuminated with a portion of the picture as shown in Figures 4 or 5. Each of the players would then be asked to complete the picture directly on the display screen utilizing the pointers shown in Figure 1 or on a piece of paper or similar device illustrated with respect to Figure 7. The portion of the scene shown on the display device shown for a short period of time or can remain there for the entire time the participants would be asked to complete the picture. Once a participant believes that the scene has been accurately

completed, that participant would hit the signal buzzer **108**, ending that portion of the competition and the game master would check the drawing either on the screen or on the paper **134**. If that participant is correct, he will be awarded a certain number of points. If the answer is wrong, that same number or a different number of points would be deducted from his score. If that participant is wrong, the game will continue by either allowing all the participants to continue to draw the picture based upon the initial amount of information depicted on the screen or by adding additional information to that screen.

Alternatively, each of the participants may be asked to correctly complete the drawing, while being challenged by the utilization of various implements designed to make it more difficult to accurately complete the drawing. For example, as illustrated in Figure 7, each of the participants might be required to wear special three dimensional or distorted glasses **130**. Other challenges would include but not be limited to requiring each of the participants to utilizing a vibrating pen to complete the drawing or by requiring the participants to utilizing one or more of the challenges previously listed. For example, the game master might initially begin the game at a lower skill level by requiring the participants to complete the picture without utilizing any of the aforementioned challenges. Each subsequent round of the game would require each of the participants to use one or more of the challenging implements or situations. The game would continue for a predetermined number of round, each round awarding or deducting various point scores from each of the participants. For example, as each of the challenges become more difficult, more points could be awarded to the participant who successfully completes the picture. After all of the round are completed the participant with the most points would be declared the winner.

It is noted that this game can also be played without the use of the game master. In this embodiment, each of the player's display units would be connected to one or more

computers provided local to the participants or the game could be played over the Internet, with each of the display units connected to a central computer. In this embodiment, a portion of the picture would be displayed on each of the display screens of the participants, and each of the participants would then be asked to complete the scene directly on the display screen utilizing the pointer or vibrating marker shown in Figure 1. In this instance, referring to Figure 2, the CPU **50** and the memory would operate with additional elements in the controller **48** to properly present the pictures or scenes depicted on the game unit displays. For example, an algorithm could be utilized in which the exact progression of the display scene or fragments of the scene would be preordained during the play of each round or portion of a round. If a participant believes that he has correctly drawn the picture, the signal button **108** shown in Figure 4 would be pressed and the computer would compare the drawn puzzle to a completed puzzle contained in the memory **52**. If the participant is correct, points would be awarded to him. However, if the participant is incorrect, points would be deducted from his score and play would continue. The scene would then progress by adding additional segments to the display and would be maintained there for a particular period of time. The participants would then be asked to complete the scene.

Alternatively, if no individual were able to complete the scene based upon, for example, the fragments shown in Figure 5, a more complete scene would be displayed: however, this scene might or might not include the fragment not shown in Figure 5. Furthermore, an algorithm could be utilized wherein the fragment initially shown with respect to the basketball scene shown in Figure 5 might initially change each time that scene would be depicted. Various modifications could be made to this game such as augmenting a score awarded to a successful participant based upon the time it took the participant to complete the drawing.

Along with correctly drawing the picture or scene, each participant could also be given the opportunity of answering questions associated with the display screen. These questions could be answered by utilizing the mouse, keyboard or by verbalizing the answers. If the answers were verbalized, the voice recognition device **56** would be used to determine whether the response is correct in conjunction with the CPU **50** and the memory **52**. Similarly, if the mouse or keyboard would be utilized to input the response, the voice recognition device **56** would be bypassed. For example, in the example depicted in Figures 4, 5 and 6 in which the completed scene is from a basketball game, the participants might be asked to identify the scene or to answer questions relating to that scene. Additional points would be awarded to or deducted from the participants based upon their responses to these questions. Response to these questions would appear on the bottom of the screen as shown at **122** in Figure 6.

Various modifications can be made to the game. For example, as previously described, audio cues could be utilized. These cues could be provided to each of the players during the entire duration of each round or only for a portion of each round. Additionally, if the participants draw on their respective screens, the contribution of each of the participants during the play of each round could be shown on their own particular display as differently colored lines than the fragments or segments automatically displayed by the game controller. If a particular participant is incorrect in the completion of the drawing, these lines could be deleted as additional fragments or segments appear or they can remain in place. The controller by comparing the scene completed by each of the participants to the completed scene provided in the controller's memory would determine if the scene was properly finished by one or ore of the participants.

As can be appreciated, if the completed picture or scene is automatically judged by the controller **48** and not a

host, the time at which the picture was correctly completed could factor into the amount of points awarded to a particular participant. For example, if two participants correctly complete the picture or scene during a portion of the round and one participant correctly completes the picture or scene in two minutes and the second participant correctly completes the picture or scene in three minutes, the first participant would be awarded more points than the second participant. Additionally, depending upon the rules of the game, that first participant might receive all of the points and the second participant would receive no points. These points would be accumulated during play of the game and could be displayed on the display screen.

The above-described embodiments are intended to be illustrative and not exhaustive. These embodiments would suggest many variations and alternatives to one of ordinary skill in the art. For example, instead of only portions of a particular picture or scene being progressively illustrated on each of the participant's display units, the display picture or scene in its entirety could be displayed for a short period of time, such as one to five seconds. Once the picture or scene is removed from the display, each of the participants would have the opportunity of drawing that scene or would be asked questions relating to that scene. As can be appreciated, the amount of time on which this picture or scene is displayed could be incrementally increased during the play of that particular round. Furthermore, those familiar with the art may recognize other equivalents to the specific embodiments described herein. For example, the number of pictures or scenes utilized are virtually limitless by the inclusion of various disks associated with the controller.